

## CLAIMS

1. An analog/digital-compatible front-end module capable of receiving analog television broadcast and digital television broadcast, the analog/digital-compatible front-end module comprising a high frequency amplifier 9 for amplifying a high frequency signal received by an antenna 1; a frequency converter circuit for frequency-converting an output signal from the high frequency amplifier 9 to output an intermediate frequency signal; an analog demodulator 5 for receiving analog television broadcast; a digital demodulator 6 for receiving digital television broadcast; analog/digital switching means for selectively feeding an output signal from the frequency converter circuit to the analog demodulator 5 or to the digital demodulator 6; and gain control switching means for controlling gain of the high frequency amplifier 9 in accordance with a gain control signal obtained from the analog demodulator 5 during an analog broadcast reception, while controlling gain of the high frequency amplifier 9 in accordance with a gain control signal produced from the output signal from the frequency converter circuit during a digital broadcast reception.
2. An analog/digital-compatible front-end module according to claim 1, wherein a wideband RF filter is interposed between

the high frequency amplifier 9 and the frequency converter circuit, and an IF filter with a narrower band than that of the RF filter is interposed between the frequency converter circuit and the analog/digital switching means.

- 5    3.    An analog/digital-compatible front-end module according to claim 1 or 2, wherein the frequency converter circuit comprises an intermediate frequency amplifier 14 for amplifying the intermediate frequency signal frequency-converted, and during the digital broadcast reception an
- 10   output signal from the intermediate frequency amplifier 14 is detected and selected by the gain control switching means, and is fed for gain control of the high frequency amplifier 9.
4.    An analog/digital-compatible front-end module according to any one of claims 1 to 3, wherein the gain control
- 15   switching means comprises a signal switch 7 for selecting the gain control signal produced from the output signal from the frequency converter circuit or the gain control signal obtained from the analog demodulator 5 to feed the selected signal to the high frequency amplifier 9.